Trend Watch

Treatment of Migraine and the Role of Psychiatric Medications

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ABSTRACT: Over the past year, there were approximately 5.5 million patients treated for migraine. Approximately 50 percent of migraine patients are treated by primary care physicians and an additional 21 percent are treated by neurologists. Psychiatrists play a small role in the treatment of migraine, and they treat only slightly more than one percent of migraine patients. 5HT-1 agonists represent 42 percent of migraine treatment. Pain products (both narcotic and non-narcotic) and antiepileptics account for an additional 21 percent and 13 percent of migraine therapy treatments, respectively. Psychiatric medications, such as tricyclic antidepressants, are not commonly used in the treatment of migraine (3.5% of medication uses). A discussion of data is provided.

KEY WORDS: migraine, psychiatry, comorbidity, pharmacotherapy

INTRODUCTION

It has long been recognized that tricyclic antidepressants (TCAs) are widely used off label for a variety of conditions, including migraine. In this Trend Watch, we examine the treatment of migraine and the role of psychiatric medications.

METHODS

We obtained data from SDI Health's Prescription Drug and Diagnosis Audit (PDDA) regarding products used to treat migraine (ICD-9 diagnosis code 346) over the year from August 2007 through July 2008.

RESULTS

Over the past year, there were approximately 5.5 million patients treated for migraine. Approximately 50 percent of migraine patients are treated by primary care physicians (family practice, general practice, internal medicine) (Figure 1). An additional 21 percent of patients are treated by neurologists. Psychiatrists play a small role in the treatment of migraine because they treat only slightly more than one percent of migraine patients.

Figure 2 displays classes of medication used in the treatment of

migraine. As seen in Figure 2, 5HT-1 agonists represent 42 percent of migraine treatment. Pain products, both narcotic and non-narcotic, account for an additional 21 percent of migraine therapy. Antiepileptic agents, primarily topiramate, comprise 13 percent of migraine treatments. Psychiatric medications, such as TCAs, are not commonly used in the treatment of migraine (3.5% of medication uses).

EXPERT COMMENTARY

by Todd A. Smitherman, PhD

To whom do migraineurs take their troubles? These trend data confirm that migraine patients are far more likely to seek treatment in primary care or neurology practice settings than in the office of psychiatrists. Despite this fact, however, the high rates of psychiatric comorbidity among migraineurs[1–3] position psychiatrists uniquely to treat particularly challenging migraine patients.

Approximately 20 to 30 percent of migraineurs will at some point merit a diagnosis of major depression, while approximately 50 percent will be diagnosed with an anxiety disorder.[2–4] Comorbid anxiety and depressive disorders among migraineurs have been linked to increased medical costs, increased disability, poorer prognosis, and the progression of migraine from episodic to chronic forms.[5,6] Because of the prevalence and detrimental impact of psychiatric comorbidities, all psychiatrists should screen migraine patients for depression and anxiety and also be alert for the presence of migraine in those patients who present exclusively with common psychiatric symptoms. Psychiatrists should also be attentive to the possibility of sleep dysregulation and disorders, which are also common in migraine patients.[7]

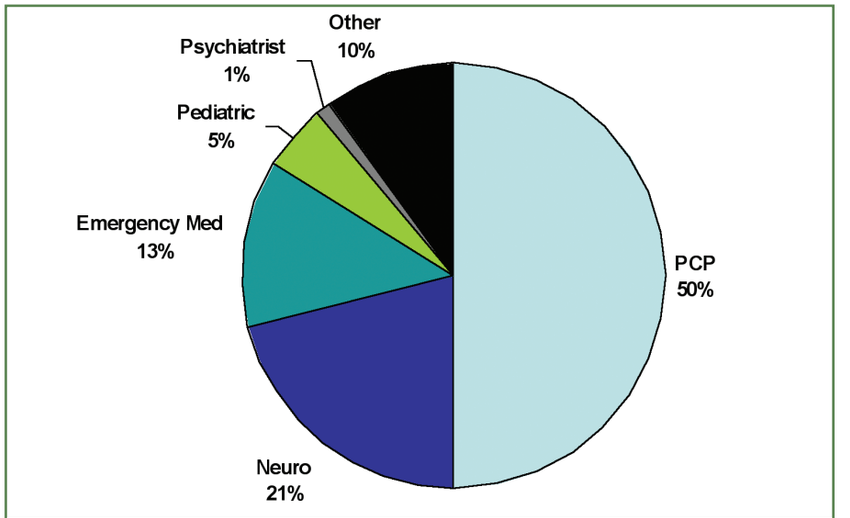

FIGURE 1. Specialty mix for treatment of migraine (5.5 million patients)
Source: SDI Health VONA, Migraine (ICD-9 Diagnosis Code, 346), August 2007 to July 2008.

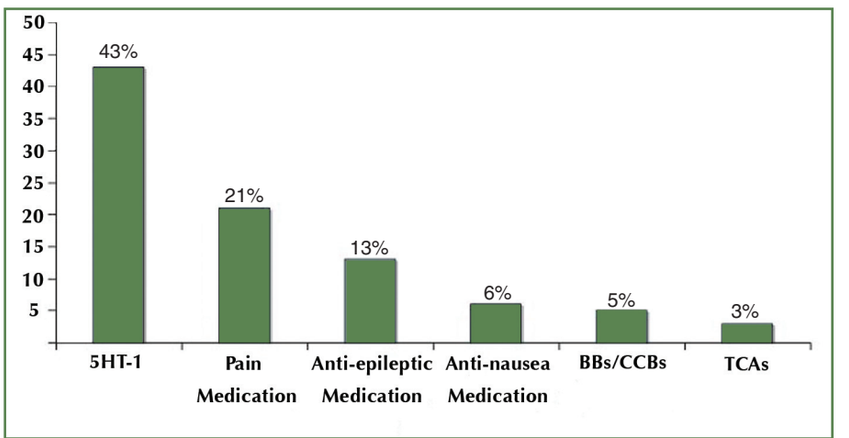

FIGURE 2. Treatment of migraine—Includes treatments accounting for at least 1% of migraine therapies; KEY: BBs/CCBs=beta blockers/calcium channel blockers; TCAs=tricyclic antidepressants

Source: SDI Health PDDA, Migraine (ICD-9 diagnosis 346) August 2007 to July 2008.

Figure 2 confirms the huge impact that the introduction of triptans (5HT-1 agonists) has had on the landscape of migraine treatment. These migraine-specific agents are generally well tolerated, have relatively simple pharmacokinetics, and have well-demonstrated efficacy. Triptans are recommended by the US Headache Consortium[8] as an appropriate front-line treatment for acute management of moderate to severe migraine in those without clinical contraindications and when non-specific medication has failed. The goal of acute treatment with triptans is to treat attacks quickly, without recurrence, and to minimize the use of "rescue medications."

In many cases of complex psychiatric comorbidities and migraine, however, treatment regimens may need to go beyond

acute treatment with a triptan and focus also on prevention. Most of the selective serotonin reuptake inhibitors (SSRIs) commonly prescribed for affective disorders have not shown strong efficacy for migraine.[9] Griffith and Razavi[10] have provided details about pharmacological management of migraine patients with affective comorbidities. They note that the optimal antidepressant is one that has demonstrated dual efficacy in treating both migraine and depression/anxiety. For depression, candidate dual-action medications include serotonin/norephinephrine reuptake inhibitor (SNRIs) (such as venlafaxine) and TCAs (such as amitriptyline). These medications have shown separate efficacy for depression and headache, and amitriptyline in particular has demonstrated Grade A quality evidence for migraine.[8] However, the trend data confirm that TCAs are prescribed relatively infrequently, likely due to their side effect profile and narrow therapeutic index.

Panic patients with migraine may benefit from venlafaxine, TCAs, and monoamine oxidase inhibitor (MAOIs).[10] Frequently, however, the dose needed to control depression or anxiety far exceeds that needed to control migraine. A prudent strategy in the attempted use of a single agent to treat both conditions is to utilize dosing guidelines from the psychiatric literature while monitoring for adverse events. Bipolar patients may benefit from anticonvulsants and mood stabilizers that have shown promise in reducing migraines, such as valproate and olanzapine.[10]

Because many of the pharmacological agents with demonstrated efficacy for psychiatric conditions have not been found particularly effective for migraine, ultimately many patients will require multiple agents to address both conditions effectively. In such cases, prescribing psychiatrists necessarily should attend to potential drug interactions, contraindications, and the potential for medication overuse (which frequently causes headache, particularly with analgesics).

Clearly, further clinical trials are needed to guide the utilization of various pharmacological agents in the treatment of the migraine patient with psychiatric comorbidities. Other studies are needed to discern the mechanisms of action responsible for the therapeutic effects of some psychotropic medications on migraine. Psychiatrists will likely play a significant role in these future studies, because they are often presented with some of the most challenging and complex migraine patients. The migraine patient with psychiatric comorbidities is an exemplar complex patient, successful treatment of whom requires knowledge of and extrapolation from the efficacy literature as well as sound clinical judgment.

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